



au688006/pn

L1 ANSWER 1 OF 1 WPINDEX COPYRIGHT 2006 THE THOMSON CORP on STN
 ACCESSION NUMBER: 1995-351326 [45] WPINDEX
 DOC. NO. NON-CPI: N1995-261962
 DOC. NO. CPI: C1995-153906
 TITLE: New transformed potato plants or their progeny - contg.
 anti sense starch branching enzyme cDNA used for
 producing starch with altered properties.
 DERWENT CLASS: C06 D16 D17 F06 F09 G03 P13
 INVENTOR(S): COOKE, D; GIDLEY, M J; JOBLING, S A; SAFFORD, R;
 SIDEBOTTOM, C M; WESTCOTT, R J
 PATENT ASSIGNEE(S): (NATT) NAT STARCH & CHEM INVESTMENT; (NATT) NAT STARCH &
 CHEM INVESTMENT HOLDING COR
 COUNTRY COUNT: 58
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
WO 9526407	A1	19951005 (199545)*	EN	36	C12N015-82	
RW: AT BE CH DE DK ES FR GB GR IE IT KE LU MC MW NL OA PT SD SE SZ UG						
W: AM AT AU BB BG BR BY CA CH CN CZ DE DK ES FI GB GE HU JP KE KG KP						
KR KZ LK LT LU LV MD MG MN MW NL NO NZ PL PT RO RU SD SE SI SK TJ						
TT UA US UZ VN						
AU 9519028	A	19951017 (199604)			C12N015-82	
EP 754235	A1	19970122 (199709)	EN		C12N015-82	
R: AT BE DE ES FR GB IT NL SE						
AU 688006	B	19980305 (199820)			C12N015-82 <--	
US 6103893	A	20000815 (200041)			C08B030-00	
CA 2186399	C	20010904 (200155)	EN		C12N015-54	

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 9526407	A1	WO 1995-GB634	19950322
AU 9519028	A	AU 1995-19028	19950322
EP 754235	A1	EP 1995-911460	19950322
		WO 1995-GB634	19950322
AU 688006	B	AU 1995-19028	19950322
US 6103893	A	WO 1995-GB634	19950322
		US 1996-716449	19960924
CA 2186399	C	CA 1995-2186399	19950322
		WO 1995-GB634	19950322

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 9519028	A Based on	WO 9526407
EP 754235	A1 Based on	WO 9526407
AU 688006	B Previous Publ.	AU 9519028
	Based on	WO 9526407
US 6103893	A Based on	WO 9526407
CA 2186399	C Based on	WO 9526407

PRIORITY APPLN. INFO: EP 1995-300210 19950113

GB 1994-6022 19940325
EP 1994-305806 19940804

REFERENCE PATENTS: 05Jnl.Ref; DE 4104782; WO 9211375; WO 9214827
INT. PATENT CLASSIF.:

MAIN: C08B030-00; C12N015-54; C12N015-82
SECONDARY: A01H005-00; C08B030-04; C08B030-14; C08B030-20;
C12N015-11

BASIC ABSTRACT:

WO 9526407 A UPAB: 19951114

Transformed potato plants or their progeny capable of giving rise to tubers having altered starch, comprising at least an effective portion of a starch branching enzyme (SBE) cDNA operably linked in the antisense orientation to a suitable promoter, such that the level of SBE is limited to less than 0.8 units per gram of tuber, are claimed. Also claimed are: (1) a vector for modifying a potato plant so as to cause the plant to be capable of giving rise to tubers having less than 0.8 units of SBE activity per gram of tuber, the vector comprising at least an effective portion of a SBE cDNA operably linked in the antisense orientation to a suitable promoter; (2) altered starch extracted from transformed potato plants or their progeny, the plants having less than 0.8 units SBE activity per gram of tuber, where the extracted starch has the following physical properties: (i) an elevated peak temp. of gelatinisation (detd. by differential scanning calorimetry (DSC)), relative to unaltered starch extracted from equivalent non-transformed plants; and (ii) an elevated viscosity onset temp., relative to unaltered starch extracted from equivalent non-transformed plants.

USE - The starches can be used in food and non-food (e.g. paper, textiles and adhesives) applications.

ADVANTAGE - The plants have low levels of SBE activity, and produce starches with elevated peak temps. of gelatinisation and viscosity onset.
Dwg. 0/8

FILE SEGMENT: CPI GMPI

FIELD AVAILABILITY: AB; DCN

MANUAL CODES: CPI: C04-A08C2E; C04-E08; D05-H12D2; D05-H12E; D05-H16B;
D06-H01; F01-H06; F05-A06B; F05-A06C; G03-B02A

L2 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1995:986444 CAPLUS
 DOCUMENT NUMBER: 124:11302
 ENTRY DATE: Entered STN: 16 Dec 1995
 TITLE: Method for producing altered starch from potato plants
 INVENTOR(S): Cooke, David; Gidley, Michael John; Jobling, Stephen
 Alan; Safford, Richard; Sidebottom, Christopher
 Michael; Westcott, Roger John
 PATENT ASSIGNEE(S): National Starch and Chemical Investment Holding Corp.,
 USA
 SOURCE: PCT Int. Appl., 36 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 INT. PATENT CLASSIF.:
 MAIN: C12N015-82
 SECONDARY: C12N015-11; A01H005-00; C08B030-14
 CLASSIFICATION: 44-6 (Industrial Carbohydrates)
 Section cross-reference(s): 3, 7, 11, 17
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9526407	A1	19951005	WO 1995-GB634	19950322
W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, ES, FI, GB, GE, HU, JP, KE, KG, KP, KR, KZ, LK, LT, LU, LV, MD, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SI, SK, TJ, TT, UA, US, UZ, VN				
RW: KE, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
CA 2186399	AA	19951005	CA 1995-2186399	19950322
CA 2186399	C	20010904		
AU 9519028	A1	19951017	AU 1995-19028	19950322 <--
AU 688006	B2	19980305		
EP 754235	A1	19970122	EP 1995-911460	19950322
R: AT, BE, DE, ES, FR, GB, IT, NL, SE				
US 6103893	A	20000815	US 1996-716449	19960924
PRIORITY APPLN. INFO.:			GB 1994-6022	A 19940325
			EP 1994-305806	A 19940804
			EP 1995-300210	A 19950113
			WO 1995-GB634	W 19950322

PATENT CLASSIFICATION CODES:

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 9526407	ICM	C12N015-82
	ICS	C12N015-11; A01H005-00; C08B030-14
	IPCI	C12N0015-82 [ICM,6]; C12N0015-11 [ICS,6]; A01H0005-00 [ICS,6]; C08B0030-14 [ICS,6]; C08B0030-00 [ICS,6,C*]
	IPCR	A01H0005-04 [I,A]; A01H0005-04 [I,C*]; C08B0030-00 [I,C*]; C08B0030-04 [I,A]; C12N0009-10 [I,A]; C12N0009-10 [I,C*]; C12N0015-82 [I,A]; C12N0015-82 [I,C*]
	ECLA	A01H005/04; C08B030/04D; C12N009/10D1A18;

		C12N015/82C4B2
CA 2186399	IPCI	C08B0030-14 [ICM,6]; C08B0030-00 [ICM,6,C*]; A01H0005-00 [ICS,6]; C12N0015-54 [ICS,6]
	ECLA	A01H005/04; C08B030/04D; C12N009/10D1A18; C12N015/82C4B2
AU 9519028	IPCI	C08B0030-14 [ICM,6]; C08B0030-00 [ICM,6,C*]; C12N0015-82 [ICS,6]; C12N0015-11 [ICS,6]; A01H0005-00 [ICS,6]
	IPCR	A01H0005-04 [I,A]; A01H0005-04 [I,C*]; C08B0030-00 [I,C*]; C08B0030-04 [I,A]; C12N0009-10 [I,A]; C12N0009-10 [I,C*]; C12N0015-82 [I,A]; C12N0015-82 [I,C*]
	ECLA	A01H005/04; C08B030/04D; C12N009/10D1A18; C12N015/82C4B2
EP 754235	IPCI	C12N0015-82 [ICM,6]; C12N0015-11 [ICS,6]; A01H0005-00 [ICS,6]; C08B0030-14 [ICS,6]; C08B0030-00 [ICS,6,C*]
	IPCR	A01H0005-00 [I,A]; A01H0005-00 [I,C*]; C08B0030-00 [I,C*]; C08B0030-14 [I,A]; C12N0015-11 [I,A]; C12N0015-11 [I,C*]; C12N0015-82 [I,A]; C12N0015-82 [I,C*]
US 6103893	IPCI	C08B0030-00 [ICM,7]; C08B0030-04 [ICS,7]; C08B0030-20 [ICS,7]
	IPCR	A01H0005-04 [I,A]; A01H0005-04 [I,C*]; C08B0030-00 [I,C*]; C08B0030-04 [I,A]; C12N0009-10 [I,A]; C12N0009-10 [I,C*]; C12N0015-82 [I,A]; C12N0015-82 [I,C*]
	NCL	536/102.000; 536/128.000
	ECLA	A01H005/04; C08B030/04D; C12N009/10D1A18; C12N015/82C4B2

ABSTRACT:

Disclosed is a method of producing altered starch from transformed potato plants or their progeny, comprising extg. starch from a potato plant, at least the tubers of which comprise at least an effective portion of a starch branching enzyme (SBE) cDNA sequence operably linked in the antisense orientation to a suitable promoter, such that the level of SBE activity is limited to less than 0.8 units per g tuber. Also disclosed are potato plants comprising altered starch in accordance with the invention.